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# ERA-MBT Final Conference Report

Work Package 1

Project management and coordination

Publication date: November 2017



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## EXECUTIVE SUMMARY

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After 4 years of collaboration, the Marine Biotechnology ERA-NET consortium of 19 partners from 14 countries has presented the achievements of ERA-MBT and initiatives taking these further. The conference was interactive and took feedback from the participants into future activities.

The final conference comprised 3 sessions:

**Session 1: Achievements of ERA-MBT.** This session presented and discussed results obtained by ERA-MBT and had a dialogue on the five thematic areas identified in the Marine Biotechnology Strategic Research and Innovation Roadmap.

**Session 2: Status, achievements and views from the funded projects.** This session presented the goals and outcome of the projects funded by ERA-MBT in Call 1 on Biorefinery processes, Call 2 on Biodiscovery and Call 3 on Metagenomics.

**Session 3: Marine Biotechnology after ERA-MBT.** This session presented and discussed new initiatives where marine biotechnology will be taken further to build the blue bioeconomy in Europe.

Information on the ERA-NET Marine Biotech final conference, Oslo, 20-21 November 2017 can be found at: <http://www.marinebiotech.eu/final-conference>.

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## ERA-MBT FINAL CONFERENCE REPORT

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The Marine Biotechnology ERA-NET (ERA-MBT), has come to an end after 4 years of collaboration between 19 national funding bodies pooling resources to undertake joint funding of transnational projects in the area of Marine Biotechnology. The final conference, held in Oslo on 20-21 November 2017, was the ultimate occasion to showcase all 16 funded projects, while creating discussions on other project achievements, including the five thematic areas identified in the *Marine Biotechnology Strategic Research and Innovation Roadmap*. Furthermore, the event provided a chance to present the new initiatives where marine biotechnology will be taken further to build the blue bioeconomy in Europe.

Jartrud Steinsli, Deputy Director General of the Norwegian Ministry of Trade, Energy and Fisheries set the scene of **day one of the conference** announcing the ocean as the new economic frontier. She cited the OECD publication *The Ocean Economy in 2030* that “between 2010 and 2030 on a ‘business-as-usual’ basis, the ocean economy could more than double its contribution to global value added, reaching over USD 3 trillion”. The Norwegian government plays a leading role to promote sustainable use of the oceans, clean and healthy oceans, and the role of the blue economy in development policy (white paper).

From a European policy perspective, Niels Gøtke from the Danish Ministry of Higher Education and Science and coordinator of the former COFASP ERA-net, confirmed that the marine sector will continue to be in focus in H2020, with special attention to biotechnologies and the bioeconomy. He gave a very nice overview of what is going on in the field of blue bioeconomy and concluded that partnering (PPP and P2P) will also be in focus in FP9.

Steinar Bergseth (ERA-MBT coordinator, The Research Council of Norway), Torger Børresen (The Research Council of Norway), Dermot Hurst (Marine Institute of Ireland) and Sigurdur Björnsson (The Icelandic Centre for Research), who worked as a strong team centrally in ERA-MBT, presented the key achievements from the project. They provided practical illustrations on how the project has and will impact the blue biotech landscape in Europe. The focus was on the role of the ERA-MBT roadmap, the interactions between industry and academics and targeted communication along the value chain as a tool in commercialising knowledge output.

The five roadmap themes were given much attention in a separate conference session. A keynote speaker provided a general overview of the theme, followed by a case speaker who contributed with his/her own achievements and perspectives. Separate discussions with small groups of conference participants were facilitated at the end of the session to take input on the three most important aspects of every roadmap theme that need special attention in the future.

**Day two of the conference** started with a status and achievements update from [the 16 funded projects](#) in the three main ERA-MBT calls; [call 1 on biorefinery processes](#), [call 2 on biodiscovery](#) and [call 3 on metagenomics](#). This offered a unique opportunity for the project coordinators to present their work in plenary, showcase some results in a poster session and network with other project participants, supporting the establishment of possible future successful interdisciplinary research

consortia. Although the projects are in different stages of execution, they all presented project progress and achievements in line with what was expected according to their plans and communications regarding their status.

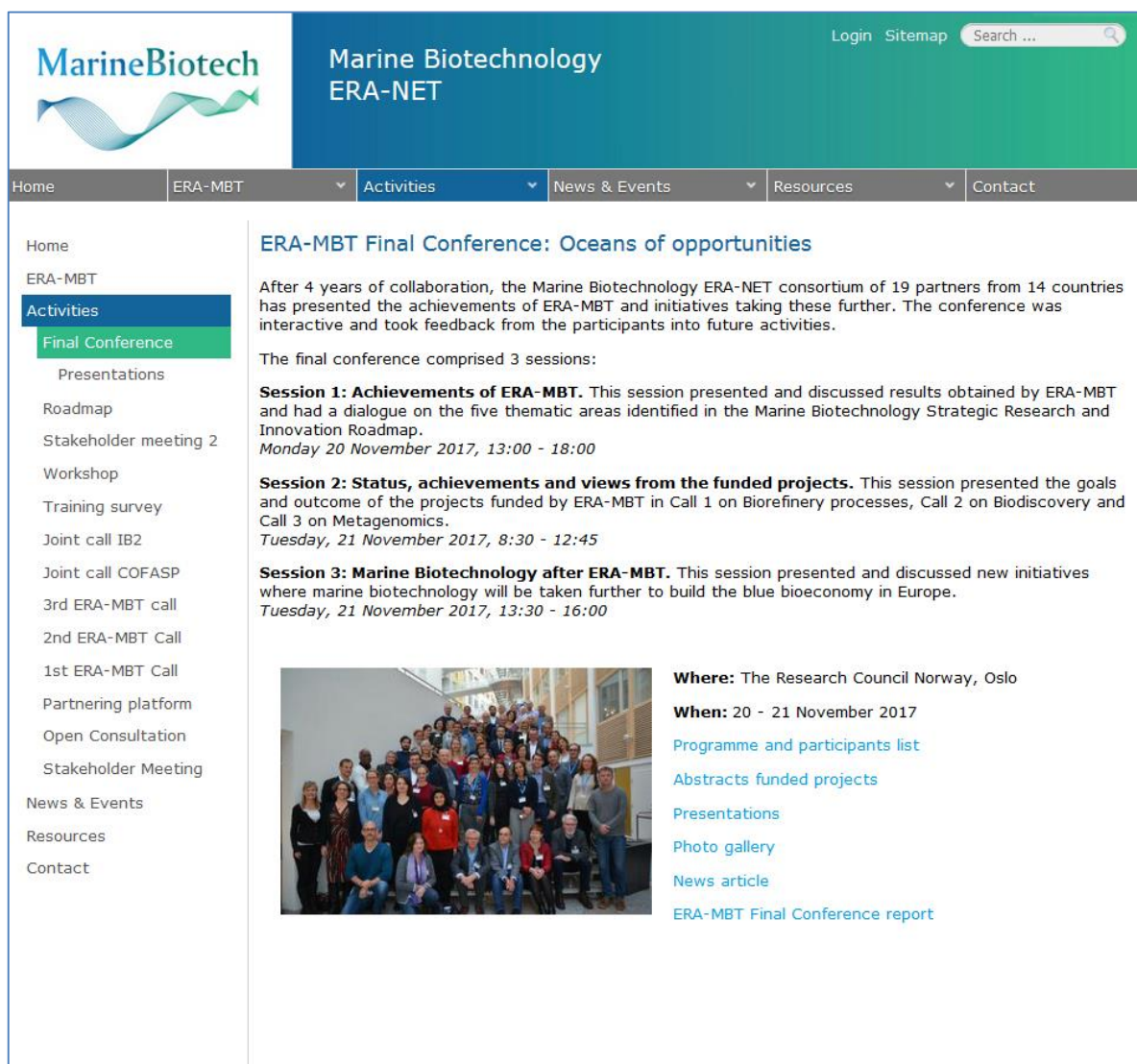
The final session of the conference was focused on the contributors in a blue Bioeconomy setting. Regional efforts to support the development of the European Blue Bioeconomy were showcased by Deniz Tasdemir (Baltic Region) and Jessica Hjerpe Olausson (Sweden), while Ernst Kloosterman considered SME challenges and Adrianna Ianora focused on marine infrastructures. Despite the significant progress in marine biotech activities over the past decade, the speakers agreed that “there remains an acute need to continue to build research and innovation capacity – in both the research and enterprise sectors and to enhance the science and technology research infrastructure (Roadmap)”. Øystein Rønning from the Research Council of Norway presented the relevant H2020 activities that could drive this mission forward.

The ERA-MBT project has been successful in raising the profile of blue biotech and in identifying new avenues for future research funding. Kristin Thorud from the Research Council Norway presented the announced ERA-Net Cofund Blue Bioeconomy, which is in preparation mode by collaborative efforts of JPI Oceans, ERA COFASP and ERA-MBT. The participation from 16 countries and 24 partners has already resulted in a total commitment of 23 M euro, with an expected EU contribution in the range of 8 M euro. The Cofund, which is expected to be launched in September 2018, will address new blue bioresources, new use of traditional blue resources, improvement of existing value chains (e.g. circular economy), and cross-cutting and supportive issues/actions.

The ERA-MBT final conference brought together 80 delegates from industry, academic institutions, policy bodies and funding agencies. Just like the other ERA-MBT stakeholder events, the conference provided a forum for networking that fostered productive discussions and generated insights into scientific, economic and societal impacts of marine biotechnology. The programme, presentations and pictures of the conference are available online on <http://www.marinebiotech.eu/final-conference>.

## WEB INFORMATION

The <http://www.marinebiotech.eu/final-conference> contains all information related to the ERA-MBT Final Conference (snapshot below and appendices).



The screenshot shows the website's header with the MarineBiotech logo and navigation links (Home, ERA-MBT, Activities, News & Events, Resources, Contact). The main content area is titled "ERA-MBT Final Conference: Oceans of opportunities" and includes a paragraph about the conference, a list of three sessions, and a group photo. A sidebar on the left lists various activities and events.

**Home**  
 ERA-MBT  
**Activities**  
 Final Conference  
 Presentations  
 Roadmap  
 Stakeholder meeting 2  
 Workshop  
 Training survey  
 Joint call IB2  
 Joint call COFASP  
 3rd ERA-MBT call  
 2nd ERA-MBT Call  
 1st ERA-MBT Call  
 Partnering platform  
 Open Consultation  
 Stakeholder Meeting  
 News & Events  
 Resources  
 Contact

**ERA-MBT Final Conference: Oceans of opportunities**

After 4 years of collaboration, the Marine Biotechnology ERA-NET consortium of 19 partners from 14 countries has presented the achievements of ERA-MBT and initiatives taking these further. The conference was interactive and took feedback from the participants into future activities.

The final conference comprised 3 sessions:

**Session 1: Achievements of ERA-MBT.** This session presented and discussed results obtained by ERA-MBT and had a dialogue on the five thematic areas identified in the Marine Biotechnology Strategic Research and Innovation Roadmap.  
*Monday 20 November 2017, 13:00 - 18:00*

**Session 2: Status, achievements and views from the funded projects.** This session presented the goals and outcome of the projects funded by ERA-MBT in Call 1 on Biorefinery processes, Call 2 on Biodiscovery and Call 3 on Metagenomics.  
*Tuesday, 21 November 2017, 8:30 - 12:45*

**Session 3: Marine Biotechnology after ERA-MBT.** This session presented and discussed new initiatives where marine biotechnology will be taken further to build the blue bioeconomy in Europe.  
*Tuesday, 21 November 2017, 13:30 - 16:00*

**Where:** The Research Council Norway, Oslo  
**When:** 20 - 21 November 2017

[Programme and participants list](#)  
[Abstracts funded projects](#)  
[Presentations](#)  
[Photo gallery](#)  
[News article](#)  
[ERA-MBT Final Conference report](#)

Figure: Snapshot of the ERA-MBT Website containing all conference related information.

## APPENDICES

### APPENDIX 1: PROGRAMME OF THE ERA-MBT FINAL CONFERENCE: ‘OCEANS OF OPPORTUNITIES’

#### Day 1

Monday, 20 November 2017

#### Session 1: Achievements from ERA-MBT

Chair: Steinar Bergseth (Coordinator, The Research Council of Norway)

13:00 – 15:00 *Deputy Director General Jartrud Steinsli, Norwegian Ministry of Fisheries and Coastal Affairs*

**European marine policies to develop the blue bioeconomy enabled by marine biotechnology**

*Niels Gøtke, Ministry of Higher Education and Science – Denmark*

**ERA-MBT achievements**

*Steinar Bergseth, The Research Council of Norway*

**Impact of the ERA-MBT roadmap and context for the bioeconomy in Europe**

*Dermot Hurst, Marine Institute, Ireland*

**Industry – research interactions**

*Sigurdur Björnsson, RANNIS – The Icelandic Centre for Research*

**Communication as a tool in commercialising MBT knowledge output**

*Torger Børresen, The Research Council of Norway*

Dialogue

15:00 – 15:20 **Break**

#### The 5 Roadmap themes seen from the outside

Chair: Dermot Hurst (Marine Institute, Ireland)

15:20 – 18:30 **Biomass production and processing**  
*Johan Robbens, Flanders research institute for agriculture, fisheries and food*

Case

*Jon Funderud, Seaweed Energy Solutions AS, Norway*

**Exploration of the marine environment**

*Donatella de Pascale, Consiglio Nazionale delle Ricerche, Italy*

Case

*Hulda Hreggvidsdottir, Zymetech ehf, Iceland*

**Product innovation and differentiation**

*Helena Vieira, University of Lisbon, Portugal*



Case

*Hans Kleivdal, Uni Research, Norway*

**Enabling technologies and infrastructure**

*Thibaud Mascart, University of Ghent, Belgium*

Case

*Espen Hansen, The Arctic University of Norway*

**Policy support and stimulation**

*Kathrine A. Hansen, JPI-oceans*

Case

*Ángel E. Muñiz Piniella, European Marine Board*

Group discussions on the 5 themes, and summing up in a facilitated dialogue between a panel and the participants.

18:30                      Mix and mingle + dinner for all at the RCN facilities

## Day 2

**Tuesday, 21 November 2017**

### Session 2: Status, achievements and views from the funded projects

#### The 2<sup>nd</sup> Call projects - Biodiscovery (10 min each)

*Chair: Adrianna Ianora (The International Advisory Group, ERA-MBT)*

8:30 – 9:30              **BlueShell** - Exploring Shellfish By-products as sources of Blue Bioactivities  
*Katleen Raes, Ghent University*

**BLUETEETH** - Marine Origin Biopolymers as Innovative Building Blocks from the Sea for the Development of Bioresorbable Multilayered Membranes for Guided Bone Regeneration  
*Håvard Jostein Haugen, University of Oslo*

**CYANOBEITY** - Cyanobacteria as a source of bioactive compounds with effects on obesity and obesity-related co-morbidities  
*Ralph Urbatzka, CIIMAR - Interdisciplinary Center of Marine and Environmental Research*

**MARPLAST** - Marine microorganisms for bioplastics production  
*Hilde Hansen, University of Tromsø - the Arctic University of Norway*

**Novofeed** - Novel feed ingredients from sustainable sources  
*Fiona Provan, International Research Institute of Stavanger*

Dialogue & QA

#### The 3<sup>rd</sup> Call projects – Metagenomics (5 min each)

*Chair: Alan Dobson (The International Advisory Group, ERA-MBT)*

9:30 – 10:10      **MarBioTech** - Advanced Marine Biotechnology toolbox for accessing the uncultivated marine microbial biodiversity and its novel biomolecules  
*Wolfgang Streit, University of Hamburg*

**ProBone** - New tools for prospecting the marine bone-degrading microbiome for new enzymes  
*Gro Elin Kjæreng Bjerga, Uni Research*

**PROMiSE** - Protist Metabolome Screening  
*Tilmann Harder, Alfred Wegener Institut, Helmholtz Zentrum für Polar und Meeresforschung*

**DIVE-IT** - Droplet In-Vitro transcription/translation Enzyme Identification  
*Josef Sperl, Technical University of Munich*

**META-MINE** - Mining the microbiomes from marine wood-digesting bivalves for novel lignocellulose depolymerizing enzymes  
*Bjørn Altermark, The Arctic University of Norway*

Dialogue & QA

10:10 – 10:30      Break

### The 1<sup>st</sup> Call projects – Biorefinery processes (20 min each)

Chair: Torger Børresen (The Research Council of Norway)

10:30 – 12:45      **ThermoFactories** - Thermophilic cell factories for efficient conversion of brown algae biomass to high-value chemicals  
*Trygve Brautaset, Norwegian University of Science and Technology*

**MARBioFEED** - Enhanced biorefining methods for the production of marine biotoxins and microalgae fish feed  
*Jane Kilcoyne, Marine Institute*

**Mar3Bio** - Biorefinery and biotechnological exploitation of marine biomasses  
*Håvard Seletta, SINTEF Materials and Chemistry*

**MicroMBT** - Discovery and training of microbial biocatalysts for biomass conversion using moving bed technology (MBT)  
*Peik Haugen, UiT-The Arctic University of Norway*

**NEPTUNA** - Novel Extraction Processes for multiple high-value compounds from selected Algal source materials  
*Dagmar Stengel, National University of Ireland Galway*

**SeaRefinery** - The Seaweed Biorefinery – for high value added products  
*Wolfgang Stelte, Danish Technological Institute*

Dialogue & QA

12:45 – 13:30      Lunch

### Session 3: Marine biotechnology – a continued enabler in a blue bioeconomy setting

Chair: Steinar Bergseth (Coordinator, The Research Council of Norway)

13:30 – 14:45      **What's in it for a marine region? A voice from the Baltic**  
*Deniz Tasdemir, GEOMAR Centre for Marine Biotechnology, Germany*

**The importance of marine regions, as seen from a Swedish partner**

*Jessica Hjerpe Olausson, Västra Götaland Region, Sweden*

**SME challenges**

*Ernst Kloosterman, International Advisory Group, ERA-MBT*

**Marine infrastructures in Europe (EMBRC & EMBRIC)**

*Adrianna Ianora, Stazione Zoologica Anton Dohrn, Italy*

Dialogue and QA

14:45 – 15:00

Break

15:00 – 16:00

**Blue Growth and relevant H2020 activities**

*Øystein Rønning, The Research Council of Norway*

**Presentation of the announced ERA-NET Cofund Blue Bioeconomy**

*Kristin E. Thorud, Coordinator, The Research Council of Norway*

Dialogue and QA

**Final words**

*Research Manager Håvard Sletta, SINTEF Biotechnology and Nanomedicine, Norway*

## APPENDIX 2: LIST OF PARTICIPANTS OF THE ERA-MBT FINAL CONFERENCE: ‘OCEANS OF OPPORTUNITIES’

### Participants list

*This participant list has been composed on 17 November 2017. Any registration after this date, has not been inserted in this list.*

Aasen Inga Marie	SINTEF, Norway
Akintoye Muyiwa	Quorn Foods, UK
Altermark Bjørn	UiT - The Arctic University of Norway, Norway
Angell-Hansen Kathrine	JPI Oceans, Belgium
Arlov Øystein	SINTEF Biotechnology and Nanomedicine, Norway
Assheuer Thomas	Project Management Juelich, Germany
Bergseth Steinar	The Research Council of Norway, Norway
Bjerga Gro	Uni Research AS, Norway
Björnsson Sigurdur	The Icelandic Centre for Research, Iceland
Børresen Torger	ERA-NET MarineBiotech, Denmark
Brautaset Trygve	NTNU, Norway
Chacón Esther	State Research Agency-Ministry of Economy, Industry and Competitiveness, Spain
Cristobal Susana	Linköping University, Sweden
Danckaerts Elien	Flanders' FOOD, Belgium
De la Calle Fernando	PharmaMar, Spain
de Pascale Donatella	Institute of Protein Biochemistry, National Research Council, Italy
De Raedemaeker Fien	Flanders Marine Institute, Belgium
Denaro Renata	Institute for Coastal Marine Environment CNR, Italy
Devriese Lisa	Flanders Marine Institute, Belgium
Dobson Alan	University College Cork, Ireland
Einarsson Hjörleifur	University of Akureyri, Iceland
Erlendsson Lýður Skúli	RANNIS, Iceland
Fronth Nyhus PA	MMS, Norway
Funderud Jon	Seaweed Energy Solutions AS, Norway
Geirsdóttir Margrét	Matís ohf, Iceland
Goksøyr Anders	University of Bergen, Norway
Gøtke Niels	Danish Agency for Science and Higher Education, Denmark
Hansen Torfinn	UiT - The Arctic University of Norway, Norway
Hansen Hilde	UiT - The Arctic University of Norway, Norway
Hansen Espen	UiT - The Arctic University of Norway, Norway
Harder Tilmann	Alfred Wegener Institute for Polar Marine Research, Germany
Haugen Peik	UiT - The Arctic University of Norway, Norway
Haugen Håvard J	Department of Biomaterials, University of Oslo, Norway
Haukeland Caroline	Polar Algae, Norway
Hjerpe Olausson Jessica	Region Västra Götaland, Sweden
Hov-Gylthe Tina Rebecca	The Research Council of Norway, Norway
Hreggvidsdóttir Hulda	Zymetech, Iceland

Hurst Dermot	Marine Institute, Ireland
Ianora Adrianna	Stazione Zoologica Anton Dohrn, Italy
Jakobsen Greta	Marinova, Denmark
Kandziora Jella	Projektträger Jülich, Germany
Kilcoyne Jane	Marine Institute, Ireland
Kleivdal Hans	Uni Research, Norway
Kloosterman Ernst	Biotech North, Norway
Kobrin Irina	Project Management Juelich, Germany
Mascart Thibaud	Ghent University, Belgium
Muñiz Piniella Ángel	European Marine Board, Belgium
Neyts Alexandra	Norwegian University of Science and Technology, NTNU Oceans, Norway
Nilsen Mari Mæland	International Research Institute of Stavanger, Norway
Norton Marta	Fundação para a Ciência e Tecnologia, Portugal
Pierechod Marcin	The Arctic University of Norway, Norway
Porter Keegan	AquaTT, Ireland
Provan Fiona	International Research Institute of Stavanger, Norway
Raes Katleen	Ghent University, Belgium
Robbens Johan	Institute for Agricultural and Fisheries Research, Belgium
Rønning Øystein	Research Council of Norway, Norway
Rydberg Ellen	Regional Västra Götaland, Sweden
Samdal Ingunn A.	Norwegian Veterinary Institute, Norway
Sanz Victoria	Ministry of Economy, Industry and Competitiveness - third party: FECYT, Spain
Sletta Håvard	SINTEF Materials and Chemistry, Norway
Smalås Arne O.	UiT - the Arctic University of Norway, Norway
Sperl Josef	TU Munich, Germany
Steinsli Jartrud	Norwegian Ministry of Fisheries and Coastal Affairs, Norway
Stelte Wolfgang	Danish Technological Institute, Denmark
Stengel Dagmar	National University of Ireland Galway, Ireland
Streit Wolfgang	Universität Hamburg, Germany
Svenson Johan	RISE Research Institutes of Sweden, Sweden
Tasdemir Deniz	GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany
Thorud Krisitn E.	The Research Council of Norway, Norway
Urbatzka Ralph	CIIMAR, Centre of Marine and Environmental Research, Portugal
Van Den Bossche Tim	VIB - Ghent University, Belgium
Vang Birthe	Nofima, Norway
Vieira Helena	University of Lisbon, Portugal
Whitaker Ragnhild	Nofima, Norway

## APPENDIX 3: PICTURES OF THE ERA-MBT FINAL CONFERENCE: 'OCEANS OF OPPORTUNITIES'

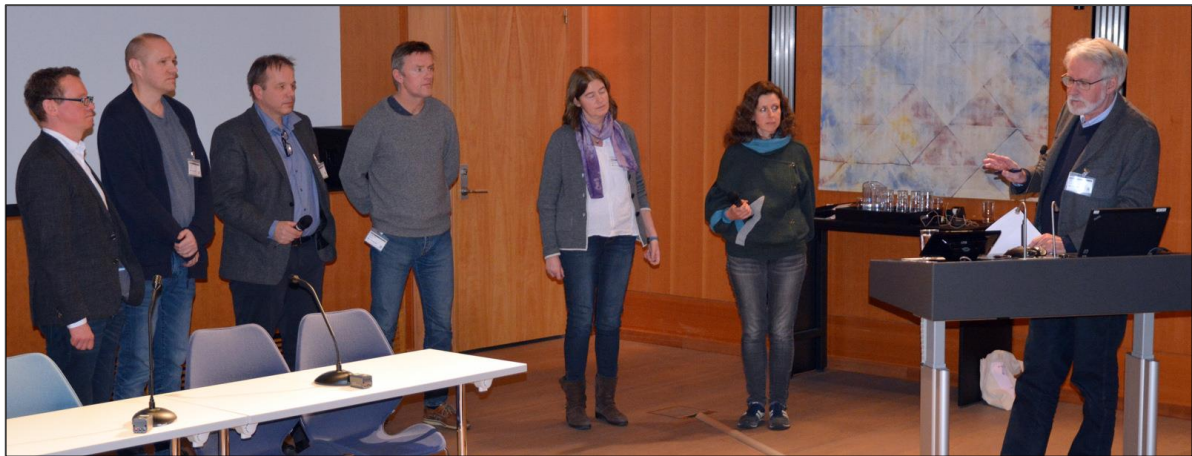
PICTURE I. Welcome to the ERA-MBT Final Conference participants by Steinar Bergseth, the Coordinator



PICTURE II. ERA-MBT Final Conference participants



PICTURE III. 1<sup>st</sup> Joint Call project presenters



PICTURE IV. 2<sup>nd</sup> Joint Call project presenters



PICTURE V. 3<sup>rd</sup> Joint Call project presenters

